Classification

3rd lecture/ 1st stage   Dr.Suhair

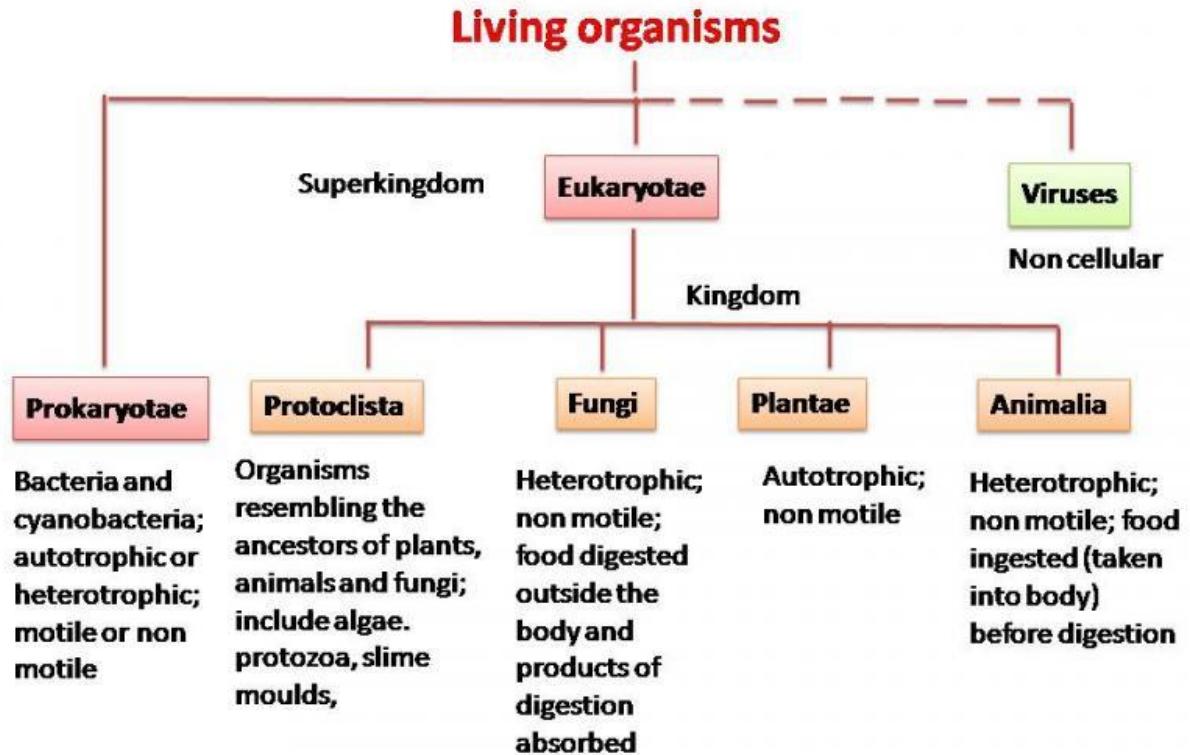**--**

Animal kingdom classification is an important system for understanding how all living organisms are related.

This system of animal kingdom classification was developed by Swedish botanist <u>Carolus (Carl) Linnaeus</u> in the 1700's. The Linnaeus Method, also known as Linnaean Taxonomy,

The primary method of animal classification is:

1. **Domain**
2. **Kingdom**
3. **Phylum**
4. **Class**
5. **Order**
6. **Suborder**
7. **Animal Families**
8. **Genus**
9. **Species**

The five kingdom classification of organisms (according to Margulis and Schwartz)

Living organisms

Superkingdom		**Eukaryotae**		**Viruses**
				Non cellular

Kingdom

Prokaryotae	**Protoclista**	**Fungi**	**Plantae**	**Animalia**
Bacteria and cyanobacteria; autotrophic or heterotrophic; motile or non motile	Organisms resembling the ancestors of plants, animals and fungi; include algae. protozoa, slime moulds,	Heterotrophic; non motile; food digested outside the body and products of digestion absorbed	Autotrophic; non motile	Heterotrophic; non motile; food ingested (taken into body) before digestion

Animal Classification: The Six Different Animal Kingdoms

All living organisms can be placed in one of <u>six different animal kingdom</u> classifications. The characteristics of each animal kingdom are:

1. **Animal** – A kingdom of complex multi-celled organisms that do not produce their own food. This kingdom contains all living and extinct animals. Examples include [elephants](#),

2 .**Plants** – Complex and multi cellular autotrophic organisms, meaning they produce their own food through photosynthesis. Examples include trees, flowers, and grass.

3.**Fungi** – Multi-celled organisms that do not produce their own food, unlike plants. Examples include molds, mushrooms, and yeast.

4.**Protista** – Single celled organisms with more complexity than either eubacteria or archaebacteria. Examples include algae and amoebas.

5.**Eubacteria** – Single celled organisms found in everything from yogurt to your intestines. This kingdom contains all bacteria in the world not considered archaebacteria.

6.Archaebacteria – The oldest known living organisms. Single-celled and found in hostile and extremely hot areas like thermal vents or hot springs

After animal kingdom, animal species usually fall into one of seven different phylum, or phyla:

1. Porifera – Marine animals more commonly known as sponges and found in **every ocean on earth**.

2. Cnidaria – Mostly marine animals that include over 11,000 species. Examples include **coral**, **jellyfish**, and anemones

3. Platyhelminthes – Typically parasitic flatworms. Lacking in any respiratory or circulatory systems, oxygen pass through their bodies instead in a process known as diffusion. Examples include tapeworms and flukes.

3. Annelida – More complex than Platyhelminthes, these are segmented and symmetrical worms

containing a nervous system, respiratory system, and sense organs. Examples include the common [earthworm](#) and leeches.

4.Mollusca – The second largest phylum by species count, and the largest marine phylum. Invertebrates with soft unsegmented bodies. It is estimated almost a quarter of marine life fall in this category. Examples include [clams](#), mussels, and [snails](#)

5.Arthropoda – Invertebrate animals with an exoskeleton and segmented bodies. Contains insects, crustaceans, and arachnids. This is the largest phylum by species count. Examples include [scorpions](#), [butterflies](#), and [shrimp](#)

4. Chordata – Vertebrates. Animals that develop a notochord, a cartilaginous skeletal rod that supports the body in embryo and can often become a spine. Most animals we are familiar with, including [dogs](#), [horses](#), [birds](#), and [humans](#) fall in to this category.

Animal Classes

The phylum group is then divided into even smaller groups, known as animal classes. The Chordata phylum splits in to these seven animal classes:

1. **Agnatha (jaw-less fish)**
2. **Chrondrichtyes (cartilaginous fish)**
3. **Osteichthyes (bony fish)**
4. **Amphibia [(amphibians)](#)**
5. **Reptilia [(reptiles)](#)**
6. **Aves (birds)**
7. **Mammalia (mammals)**

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